



Application

The BS6724 cable is designed for installations where fire, smoke, and toxic fumes pose a serious risk to life, such as in public buildings, hospitals, tunnels, and data centres. Featuring low smoke zero halogen (LSZH) materials and steel wire armour (SWA) for mechanical protection, it is suitable for mains electricity distribution in both indoor and outdoor environments. Its robust construction allows for direct burial and use in high-risk or physically demanding settings, maintaining circuit integrity during fire conditions to support critical safety systems.

Characteristics

Voltage Rating (Uo/U) 600/1000V

Temperature rating -25/+90 °C

Fixed: Minimum Bending Radius

-1.5mm² to 16mm² - Fixed: 6 x overall diameter

25mm² and above - Fixed: 8 x overall diameter

Construction

Conductor Class 2 stranded copper conductor according to BS EN 60228 (previously BS6360)

Insulation XLPE Cross-Linked Polyethylene

Bedding LSZH (Low smoke zero halogen)

Armour SWA (Steel Wire Armour)

Sheath LSZH (Low Smoke Zero Halogen)

Core Identification

2-core: Brown + Blue

3-core: Brown + Black + Grey

3G -core: Blue + Brown + Green/Yellow

4-core: Brown + Black + Grey + Blue

5-core: Brown + Black + Grey + Blue + Green/Yellow

Alternative Core Identification

White cores with Black numbers



Standards

BS6724, IEC 60754-1, BS EN 50267-2-1, BS EN/IEC 61034-1, BS EN/IEC 60332-1-2, BS EN/IEC 60332-3-24

Regulatory Compliance



RESPONSIBLY
PRODUCED
COPPER

The Copper Mark Partnership

- IEWC promotes sustainable practices by our suppliers
- Copper Mark promotes seven of 17 UN Global Sustainability Goals
- Copper Mark recipients cover 20% of global copper production

Premier Part No	No of Cores	Nominal cross-section (mm²)	Nominal Thickness of Insulation (mm²)	Nominal Diameter under armour (mm²)	Nominal overall diameter (mm²)	Approx. net weight (kg/km)	CW/BW LSOH Glands metric
23002x001.5	2	1.5	0.6	7.3	12.1	302	20s
23002x002.5	2	2.5	0.7	8.5	13.6	345	20s
23002x004	2	4	0.7	9.4	14.7	410	20s
23002x006	2	6	0.7	10.5	15.9	499	20
23002x010	2	10	0.7	12.3	18.0	648	20
23002x016	2	16	0.7	14.3	20.4	978	20
23002x025	2	25	0.9	14.7	21.0	1290	25
23002x035	2	35	0.9	16.8	23.3	1500	25
23002x050	2	50	1.0	19.0	25.8	1890	25
23002x070	2	70	1.1	22.0	29.0	2450	32
23002x095	2	95	1.1	25.1	33.1	3300	32
23002x120	2	120	1.2	27.9	36.1	4020	40
23003x001.5	3	1.5	0.6	7.8	12.6	330	20
23003x002.5	3	2.5	0.7	9.2	14.1	390	20s
23003x004	3	4	0.7	10.0	15.3	464	20s
23003x006	3	6	0.7	11.2	16.6	568	20
23003x010	3	10	0.7	13.1	19.5	866	20
23003x016	3	16	0.7	15.3	21.6	1152	25
23003x025	3	25	0.9	18.9	23.6	1800	25
23003x035	3	35	0.9	21.3	25.7	2230	32
23003x050	3	50	1.0	21.7	28.5	2490	32
23003x070	3	70	1.1	25.2	32.2	3290	32
23003x095	3	95	1.1	28.8	37.0	4440	40
23003x120	3	120	1.2	32.0	40.4	5470	40
23003x150	3	150	1.4	35.9	45.5	6930	50s
23003x185	3	185	1.6	40	49.8	8350	63s
23003x240	3	240	1.7	44.9	55.1	10400	63s
23003x300	3	300	1.8	49.8	60.2	12600	63s
23003x400	3	400	2.0	55.8	66.6	14600	75s

Premier Part No	No of Cores	Nominal cross-section (mm²)	Nominal Thickness of Insulation (mm²)	Nominal Diameter under armour (mm²)	Nominal overall diameter (mm²)	Approx. net weight (kg/km)	CW/BW LSOH Glands metric
23004x001.5	4	1.5	0.6	8.5	13.3	365	20s
23004x002.5	4	2.5	0.7	9.9	15.0	438	20
23004x004	4	4	0.7	11.0	16.4	532	20
23004x006	4	6	0.7	12.3	19.7	764	20
23004x010	4	10	0.7	14.5	21.1	1013	25
23004x016	4	16	0.7	17.0	23.4	1360	25
23004x025	4	25	0.9	21.0	26.1	216	32
23004x035	4	35	0.9	23.6	28.6	2690	32
23004x050	4	50	1.0	25.0	32.0	3130	32
23004x070	4	70	1.1	29.5	37.7	4500	40
23004x095	4	95	1.1	33.3	41.7	5600	50s
23004x120	4	120	1.2	37.5	47.1	7400	50
23004x150	4	150	1.4	41.6	51.4	8780	50
23004x185	4	185	1.6	46.4	56.6	10630	63s
23004x240	4	240	1.7	52.6	63.0	13390	63
23004x300	4	300	1.8	58	68.8	16290	75s
23004x400	4	400	2.0	65.4	78.1	19800	90
23005x001.5	5	1.5	0.6	9.7	14.3	410	20s
23005x002.5	5	2.5	0.7	11.7	16.1	470	20
23005x004	5	4	0.7	14.5	20.0	876	25
23005x010	5	10	0.7	17.2	22.9	1165	25
23005x016	5	16	0.7	20.0	26.6	1742	32
23005x025	5	25	0.9	24.7	31.5	2323	32
23005x035	5	35	0.9	27.8	34.8	2932	40
23005x050	5	50	1.0	32.4	40.4	4192	50s
23007x00.15	7	1.5	0.6	10.2	15.2	470.0	20
23007x002.5	7	2.5	0.7	12.3	17.1	600.0	20
23007x004	7	4	0.7	13.6	19.1	81.0	20

Premier Part No	No of Cores	Nominal cross-section (mm ²)	Nominal Thickness of Insulation (mm ²)	Nominal Diameter under armour (mm ²)	Nominal overall diameter (mm ²)	Approx. net weight (kg/km)	CW/BW LSOH Glands metric
23012x001.5	12	1.5	0.6	13.7	19.4	780	20
23012x002.5	12	2.5	0.7	16.3	22.4	1000	25
23019x001.5	19	1.5	0.6	16.2	22.2	1000	25
23019x002.5	19	2.5	0.7	19.9	26.6	1540	32
230027x001.5	27	1.5	0.6	20.0	26.7	1500	32
230027x002.5	27	2.5	0.7	24.0	30.7	1950	32
230037x001.5	37	1.5	0.6	22.3	29.0	1800	32
230037x002.5	37	2.5	0.7	26.9	33.8	2350	40

Class 2 Stranded Copper Conductors for Single & Multi-Core Cables				
Nominal Cross Sectional Area mm ²	Min. No. of Wires in Conductor Circular	Min. No. of Wires in Conductor Circular Compacted	Min. No. of Wires in Conductor Shaped	Max. Resistance of Conductor at 20°C Ohms/km
1.5	7	6		12.1
2.5	7	6		7.41
4	7	6		4.61
6	7	6		3.08
10	7	6		1.83
16	7	6		1.15
25	7	6	6	0.727
35	7	6	6	0.524
50	19	6	6	0.387
70	19	12	6	0.268
95	19	15	15	0.193
120	37	18	18	0.153
150	37	18	18	0.124
185	37	30	30	0.0991
240	37	34	34	0.0754

In accordance with BS EN 60228.

Current Carrying Capacity						
Nominal Cross Sectional Area mm ²	Clipped Direct Single Phase 2 Core AC or DC	Three Phase 3 or 4 Core	Free Air or Perforated Tray Single Phase 2 Core AC or DC	Free Air or Perforated Tray Three Phase 3 or 4 Core AC or DC	Direct in Ground Single Phase 2 Core AC or DC	Three Phase 3 or 4 Core
1.5	27	23	29	25	25	21
2.5	36	31	39	33	33	28
4	49	42	52	44	43	36
6	62	43	66	56	53	44
10	85	73	90	78	71	58
16	110	94	115	99	91	75
25	146	124	152	131	116	96
35	180	154	188	162	139	115
50	219	187	228	197	164	135
70	279	238	291	251	203	167
95	338	289	354	304	239	197
120	392	335	410	353	271	223
150	451	386	472	406	306	251
185	515	441	539	463	343	281
240	607	520	636	546	395	324
300	698	599	732	628	446	365
400	787	673	847	728		

Air ambient temperature 30°C

Ground ambient temperature 20°C

Conductor operating temperature 90°C

Notes.

1. Where a conductor operates at a temperature exceeding 70°C it must be ascertained that the equipment connected to the conductor is suitable for the conductor operating temperature
2. Where cables in this table are connected to equipment or accessories designed to operate at a temperature not exceeding 70°C, the current ratings given in the equivalent table for 70°C thermoplastic insulated cable

Voltage Drop							
Nominal Cross Sectional Area mm ²		Two Core DC		Two Core Single Phase DC mV/A/m		Three or Four Core Three Phase AC mV/A/m	
1.5		31		31		27	
2.5		19		19		16	
4		12		12		10	
6		7.39		7.9		6.8	
10		4.07		4.7		4	
16		2.9		2.9		2.5	
		r	x	z	r	x	z
25	1.85	1.85	0.160	1.900	1.600	0.140	1.650
35	1.35	1.35	0.155	1.350	1.150	0.135	1.150
50	0.98	0.99	0.155	1.000	0.860	0.135	0.870
70	0.67	0.67	0.150	0.690	0.590	0.130	0.600
95	0.49	0.5	0.150	0.520	0.430	0.130	0.450
120	0.39	0.4	0.145	0.420	0.340	0.130	0.370
150	0.31	0.32	0.145	0.350	0.280	0.125	0.300
185	0.25	0.26	0.145	0.290	0.220	0.125	0.260
240	0.192	0.2	0.140	0.240	0.175	0.125	0.210
300	0.155	0.16	0.140	0.210	0.140	0.120	0.185
400	0.12	0.13	0.140	0.190	0.115	0.120	0.165

Conductor operating temperature 90°C

r = resistive component

x = reactive component

z = impedance value

The above table is in accordance with Table 4E4B of the 17th edition of the IEE wiring regs.

For cable having conductors of 16mm² or less cross sectional area their inductances can be ignored and (mV/A/m)r values only are tabulated. For cable having conductors greater than 16mm² cross sectional area the impedance values are given as (mV/A/m)z together with the resistive component (mV/A/m)r and the reactive component (mV/A/m)x.